

ABSTRACT

A method and apparatus for measuring indices of brain activity includes non-invasively obtaining signals of central nervous system (CNS) activity, localizing signals to specific anatomical and functional CNS regions, correlating the signals from pain and reward brain regions, and interpreting the correlation results. The results of interpreting the correlation results can be used for objectively measuring, in individual humans or animals, their responses to motivationally salient stimuli including but not limited to stimuli which are internal or external, conscious or non-conscious, pharmacological or non-pharmacological therapies, and disease based processes. This method for measuring brain activity in reward/aversive central nervous system regions, can further be used to determine the efficacy of compounds.

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